

School-based Sexual Education

Program description:

School-based sex education curricula provide information about and instruct students in skills for sexual abstinence; many programs also provide students information about birth control and ways to protect against sexually transmitted diseases (STD). We did not include programs that focused only on HIV or STD risk reduction because we focused on the prevention of teen pregnancy. We analyzed 14 studies of abstinence-only programs and comprehensive sexual health programs and found no significant differences ($p=.65$) in effects on teens initiating sexual activity; only comprehensive programs measured pregnancy outcomes. Usually the programs lasted less than 2 months, however, a few were offered over 2 school years. Students were typically middle-school to early high school age and most programs were lead by teachers who received training in the curriculum. An exception was abstinence-only programs, which were usually offered by trained outside facilitators and trained student peer-leaders. Programs evaluated included Draw the Line/Respect the Line (Coyle 2004), Safer Choices (Coyle 2001), Reducing the Risk (Barth 1992), Sexual Health and Relationships (Henderson 2007), Promoting Health Among Teens comprehensive education (Jermott 2010), Project Taking Charge (Jorgenson 1991), McMasters Teen Program (Mitchell-DiCenso 1997), Randomized Intervention Trial of Pupil Led Sex Education (Stephenson 2008), It's Your Game: Keep It Real (Tortolero 2009), Managing Pressures Before Marriage (Blake 2001), For Keeps (Borawski 2005), Skills and Knowledge for AIDS and Pregnancy Prevention (Kirby 1997), and abstinence education (Treholm 2007).

Typical age of primary program participant: 13

Typical age of secondary program participant: N/A

Meta-Analysis of Program Effects

Outcomes Measured	Primary or Secondary Participant	No. of Effect Sizes	Unadjusted Effect Sizes (Random Effects Model)			Adjusted Effect Sizes and Standard Errors Used in the Benefit-Cost Analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Teen pregnancy (under age 18)	P	4	0.02	0.06	0.00	0.01	0.06	17	0.01	0.11	27
Initiation of sexual activity	P	14	-0.06	0.04	0.00	-0.03	0.04	15	-0.03	0.08	25

Benefits and costs were not estimated for teen pregnancy prevention programs.

Discount Rates Applied to the Meta-Analysis

Type of Discount	Discount Rate
1- Less well-implemented comparison group or observational study, with some covariates.	0.5
2- Well-implemented comparison group design, often with many statistical controls.	0.5
3- Well-done observational study with many statistical controls (e.g., instrumental variables).	0.75
4- Random assignment, with some implementation issues.	0.75
5- Well-done random assignment study.	1.00
Program developer = researcher	0.5
Unusual (not "real-world") setting	0.5
Weak measurement used	0.5

Studies Used in the Meta-Analysis

- Barth, R. P., Leland, N., Kirby, D., & Fetro, J. V. (1992). Enhancing social and cognitive skills. In B. C. Miller, J. J. Card, R. L. Paikoff, & J. L. Peterson (Eds.), *Preventing adolescent pregnancy: Model programs and evaluations* (pp. 53-82). Thousand Oaks, CA: Sage.
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- Borawski, E. A., Trapl, E. S., Lovegreen, L. D., Colabianchi, N., & Block, T. (2005). Effectiveness of abstinence-only intervention in middle school teens. *American Journal of Health Behavior*, 29(5), 423-434.
- Coyle, K., Basen-Engquist, K., Kirby, D., Parcel, G., Banspach, S., Collins, J., . . . Harrit, R. (2001). Safer choices: Reducing teen pregnancy, HIV, and STDs. *Public Health Reports*, 116(Suppl. 1), 82-93.
- Coyle, K. K., Kirby, D. B., Marin, B. V., Gomez, C. A., & Gregorich, S. E. (2004). Draw the line/respect the line: A randomized trial of a middle school intervention to reduce sexual risk behaviors. *American Journal of Public Health*, 94(5), 843-851.

Studies Used in the Meta-Analysis

- Jemmott, J., Jemmott, L., & Fong, G. (2010). Efficacy of a theory-based abstinence-only intervention over 24 months: A randomized controlled trial with young adolescents. *Archives of Pediatrics and Adolescent Medicine*, 164(2), 152-159.
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- Kirby, D., Korpi, M., Adivi, C., & Weissman, J. (1997). An impact evaluation of project SNAPP: An AIDS and pregnancy prevention middle school program. *AIDS Education and Prevention*, 9(Suppl. 1), 44-61.
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- Stephenson, J., Strange, V., Allen, E., Copas, A., Johnson, A., Bonell, C., . . . the RIPPLE study team. (2008). The long-term effects of a peer-led sex education programme (RIPPLE): A cluster randomised trial in schools in England. *PLoS Medicine*, 5(11). doi: 10.1371/journal.pmed.0050224
- Tortolero, S. R., Markham, C. M., Peskin, M. F., Shegog, R., Addy, R. C., Escobar-Chaves, S. L., & Baumler, E. R. (2009). It's your game: Keep it real: Delaying sexual behavior with an effective middle school program. *Journal of Adolescent Health*, 46(2), 169-179.
- Trenholm, C., Devaney, B., Fortson, K., Quay, K., Wheeler, J., & Clark, M. (2007). *Impacts of four Title V, Section 510 abstinence education programs: Final report* (Document No. PR07-07). Princeton, NJ: Mathematica Policy Research.